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REMARKS/ARGUMENTS

At the request of Examiner Lilling, Applicants are submitting the following supplemental comments regarding the outstanding rejection of pending claim 24 under 35 USC §103(a) over US Patent No. 6,340,581 (Gaddy) and Ricker *et al*, 1979 *J. Separ. Proc. Technol.*, 1(1):36-41 (Ricker I).

Applicants' Invention

Claim 24 is drawn to an anaerobic microbial fermentation process for producing acetic acid comprising (a) a step of fermenting gas in a bioreactor with an anaerobic acetogenic bacterium, thereby producing a fermentation broth comprising acetic acid and dissolved carbon dioxide; (b) *a step of removing unwanted carbon dioxide from the fermentation broth*; (c) a step of contacting the broth of (b) with a solvent containing an amine; (d) a step of distilling acetic acid from the solvent phase; and (e) a step of recycling the solvent to the contacting step (c).

No combination of Gaddy and Ricker I suggests an anaerobic microbial fermentation process for producing acetic acid that contains a step for removing unwanted carbon dioxide from the fermentation broth.

Although Gaddy refers to a continuous anaerobic microbial fermentation process for producing acetic acid using a gas substrate, an aqueous nutrient medium and *C. ljungdahlii* bacteria, Gaddy does not teach or suggest removing unwanted carbon dioxide, *or any other gases*, from the fermentation broth in his process. Gaddy does not mention or address any advantages, in production, efficiency, or otherwise, that could accrue to his process if any unwanted gases are eliminated from the fermentation reactor in his process.

Ricker I discusses extractant/diluent compositions that are assertedly useful in extracting acetic acid from solutions, and does *not* teach or suggest *any* fermentation processes for the production of acetic acid. Therefore, Ricker I does not and cannot teach or suggest removing unwanted carbon dioxide or any other gases from a

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fermentation broth. Further, Ricker I does not discuss a process for obtaining acetic acid from an aqueous phase or distilling acetic acid from any solvent or aqueous phases. Ricker I therefore does not add anything to Gaddy to teach or suggest the present invention of claim 24, which *requires* a carbon dioxide removal step.

To further support this argument directed against Ricker I, Applicants provide a subsequently published document by the same authors, i.e., Ricker *et al* 1980 *J. Separ. Proc. Technol. 1*(2):23-30 (Ricker II). Ricker II demonstrates no more relevance to Applicant's invention than does Ricker I.

Ricker II discusses improving extraction processes for obtaining acetic acid and chlorinated acetaldehydes, and does *not* teach or suggest *any* fermentation processes for the production of acetic acid. Ricker II *does not and cannot* teach or suggest removing unwanted carbon dioxide or any other gases from a *fermentation* broth. Ricker II, like Ricker I, therefore does not add anything to Gaddy or Ricker I to teach or suggest the present invention.

For the examiner's convenience, Ricker II is cited in the Third IDS filed concurrently herewith in an effort to comply with the requirements of 37 CFR § 1.56. Ricker II is related to Ricker I noted above, but is **no more relevant** than Ricker I.

The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees to our Deposit Account Number 08-3040.

Respectfully submitted,

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